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BORDEN LADNER GERVAIS LLP
Anne Kinsman
WORLD EXCHANGE PLAZA
100 QUEEN STREET SUITE 1100
OTTAWA, ON K1P 1J9
CANADA

EXAMINER	
HOLLIDAY, JAIME MICHELE	
ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipinfo@blgcanada.com
aarmstrongbaker@blgcanada.com
akinsman@blgcanada.com

Office Action Summary	Application No.	Applicant(s)	
	10/551,422	PATEL, ASHOK C.	
	Examiner	Art Unit	
	JAIME M. HOLLIDAY	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/19/09*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. **Claims 1-9 and 12-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dent (US 6,393,284 B1)** in view of **Hardin (US 6,400,948 B1)**, and in further view of **Sporre (5,996,657)**.

Consider **claim 1**, Dent clearly show and disclose a method of connecting a mobile device to a network having associated channels (cellular radiotelephone is then tuned to a selected one of the candidate control channels; signal is received on the selected one of the candidate control channels; TDMA [col. 3 lines 33-36, lines 64-67, col. 4 lines 21-27]), the method comprising: scanning a selected subset of the associated channels (a scanning strategy to locate narrowband AMPS or D-AMPS channels using a dual-mode cellular radiotelephone; the receiver is tuned to the region of the spectrum containing AMPS control channels [fig. 5, col. 8 lines 8-15]) to create a list of potential channels carrying signals having power in excess of a predetermined threshold (a test is made as to whether any measured average signal strength (*power*)

exceeds a predetermined threshold; if yes, the receiver is tuned to the first of the 30 kHz channel steps located within the region of the highest average signal strength identified [col. 8 lines 8-27]); analyzing entries in the list of potential channels to identify channels carrying an encoded signal (the AMPS channel containing the largest signal strength is identified; receiver is tuned to that channel and an attempt is made to decode an analog control channel (*encoded signal*) [col. 8 lines 24-36]); and establishing a connection between the mobile device and the network associated with a channel carrying a strongest signal within the channels identified as carrying the encoded signal (signal is received on the selected one of the candidate control channels [fig. 5A, col. 4 lines 21-27, col. 8 lines 28-36] *wherein there is only one channel decoded which is also the strongest channel*).

However, although a list created with a group of channels with an average signal strength greater than a threshold is taught, Dent fails to explicitly teach that each of the channels in the potential list have an individual power greater than a threshold.

In the same field of endeavor, Hardin clearly show and disclose scanning a selected subset of the associated channels to create a list of potential channels carrying signals having power in excess of a predetermined threshold (selecting DCCH channels from a history list; comparing power levels detected against a threshold power level; when some of the DCCHs are above the threshold, selecting the DCCH with the strongest signal level [fig. 6, col. 10 lines 33-53]

wherein all the DCCHs with power levels above the threshold reads on "list of potential channels").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select the strongest control channel when several channels that exceed a power threshold out of a list as taught by Hardin in the system of Dent, in order to search and acquire a control channel.

However, Dent, as modified by Hardin, fails to explicitly disclose that multiple channels are decoded.

In the same field of endeavor, Sporre clearly shows and discloses analysing all of the entries in the list of potential channels to identify channels carrying an encoded signal (mobile station periodically obtains an updated active BA-list; signal strength measurements are obtained, and only the strongest signal strength measurements of the BCCH frequencies contained in the list will be reported, only if mobile can decode the BSIC on these frequencies [col. 4 lines 35-46, col. 8 line 56- col. 9 line 5], *wherein the claimed potential list includes TCH and BCCH frequencies but the mobile station can only decode the BCCH frequencies*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to measure signal strengths of a list of frequencies only when they can be decoded as taught by Sporre in the system of Dent, as modified by Hardin, in order to search and select a control channel.

Consider **claim 2**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Dent further discloses wherein the encoded signal is a GSM encoded signal and the network associated with the GSM encoded signal is a GSM network (an attempt is made to locate a GSM control channel [abstract, col. 9 lines 33-34, col. 1 lines 47-52]).

Consider **claim 3**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Dent further discloses initializing a timer after scanning the selected subset when the step of analyzing fails to identify channels carrying the encoded signal (if no region contains a signal over the predetermined threshold or no additional analog control channels can be found, then the wideband (GSM) mode is reselected; receiver is turned to a channel and an average signal strength measurement is made over a period of less than 6.6 ms; additional passes are made until three full passes have been made for a total time of 20 ms used [col. 8 lines 37-57]); and waiting until expiry of the timer before scanning a next selected subset (the greatest of the three signal strength measurements made on each channel, then the measurements are repeated using other channels (*next selected subset*) until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 4**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 1**

above, and in addition, Dent further discloses wherein a subsequently selected subset is distinct from a previously selected subset (the receiver is tuned to the region of the spectrum in which the AMPS digital control channels or D-AMPS traffic channels may be located [col. 8 lines 37-44]).

Consider **claim 5**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 4 above**, and in addition, Dent further discloses wherein the subsequently selected subset is complementary to the previously selected subset (then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 6**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 1 above**, and in addition, Dent further discloses assembling the complete list of channels carrying the encoded signal from all the associated channels prior to establishing the connection when the step of analysing identifies at least one channel carrying the encoded signal (the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel; if no analog control channel is properly decoded, then a determination is made as to whether additional signal strengths above threshold are present; if yes, then using the AMPS receiver bandwidth for all regions identified in the wideband scan with signal strengths over the predetermined threshold, until an AMPS control channel is found [col. 8 lines 25-36]).

Consider **claim 7**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 6 above**, and in addition, Dent further discloses wherein the step of assembling the complete list of channels carrying the encoded signal includes scanning all channels in a frequency band to identify encoded signals (receiver is tuned to the region of the spectrum containing AMPS control channels and the receiver is step-tuned in steps of, for example 150 kHz [col. 8 lines 8-15]).

Consider **claim 8**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 6 above**, and in addition, Dent further discloses wherein the step of assembling the complete list of channels carrying the encoded signal includes scanning a next selected subset of the associated channels, complementary to the selected subset of the associated channels, to identify the presence of the encoded signal (the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel; if no analog control channel is properly decoded, then a determination is made as to whether additional signal strengths above threshold are present; if yes, then using the AMPS receiver bandwidth for all regions identified in the wideband scan with signal strengths over the predetermined [col. 8 lines 25-26]).

Consider **claim 9**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 6 above**, and in addition, Dent further discloses wherein the step of establishing

the connection includes registering the mobile device to the network (when a cellular radiotelephone is powered on, it performs an initialization procedure with the cellular radiotelephone system; the cellular radiotelephone scans a plurality of channels and/or time slots in order to locate an appropriate control channel [col. 1 lines 30-35]) with an associated encoded signal having the strongest power (the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel and an attempt is made to decode an analog control channel [col. 8 lines 8-36]).

Consider **claim 12**, Dent clearly shows and discloses a mobile device for connecting to an accessible wireless network transmitting an encoded signal in at least one of a plurality of channels in a frequency band (cellular radiotelephone is then tuned to a selected one of the candidate control channels; signal is received on the selected one of the candidate control channels; TDMA [col. 3 lines 33-36, lines 64-67, col. 4 lines 21-27]), the mobile device having a transceiver ([fig. 1-fig. 4]), comprising: a channel subset selector for selecting a subset of the channels in the frequency band and for controlling the transceiver to scan the channels in the selected subset (a scanning strategy to locate narrowband AMPS or D-AMPS channels using a dual-mode cellular radiotelephone; the receiver is tuned to the region of the spectrum containing AMPS control channels [fig. 5, col. 8 lines 8-15]); an encoded signal detector for identifying channels scanned by the transceiver carrying an encoded signal having power in excess of a predetermined threshold (a test is made as to whether any measured average

signal strength (*power*) exceeds a predetermined threshold; if yes, the receiver is tuned to the first of the 30 kHz channel steps located within the region of the highest average signal strength identified [col. 8 lines 8-27]); and a network device registrar for registering the mobile device on an accessible network associated with a channel carrying a strongest signal within the channels identified as carrying the encoded signal (the AMPS channel containing the largest signal strength is identified; receiver is tuned to that channel and an attempt is made to decode an analog control channel; when a cellular radiotelephone is powered on, it performs an initialization procedure with the cellular radiotelephone system; the cellular radiotelephone scans a plurality of channels and/or time slots in order to locate an appropriate control channel [col. 1 lines 30-35, col. 8 lines 24-36]).

However, although a list created with a group of channels with an average signal strength greater than a threshold is taught, Dent fails to explicitly teach that each of the channels in the potential list have an individual power greater than a threshold.

In the same field of endeavor, Hardin clearly show and disclose identifying channels scanned by the transceiver having power in excess of a predetermined threshold (selecting DCCH channels from a history list; comparing power levels detected against a threshold power level; when some of the DCCHs are above the threshold, selecting the DCCH with the strongest signal level [fig. 6, col. 10

lines 33-53] *wherein all the DCCHs with power levels above the threshold reads on "list of potential channels*").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select the strongest control channel when several channels that exceed a power threshold out of a list as taught by Hardin in the system of Dent, in order to search and acquire a control channel.

However, Dent, as modified by Hardin, fails to explicitly disclose that multiple channels are decoded.

In the same field of endeavor, Sporre clearly shows and discloses an encoded signal detector for identifying channels scanned by the transceiver carrying an encoded signal (mobile station periodically obtains an updated active BA-list; signal strength measurements are obtained, and only the strongest signal strength measurements of the BCCH frequencies contained in the list will be reported, only if mobile can decode the BSIC on these frequencies [col. 4 lines 35-46, col. 8 line 56- col. 9 line 5], *wherein the claimed potential list includes TCH and BCCH frequencies but the mobile station can only decode the BCCH frequencies*).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to measure signal strengths of a list of frequencies only when they can be decoded as taught by Sporre in the system of Dent, as modified by Hardin, in order to search and select a control channel.

Consider **claim 13**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses further including a timer for initiating a delay if the encoded signal detector does not detect the encoded signal in the subset of the channels (if no region contains a signal over the predetermined threshold or no additional analog control channels can be found, then the wideband (GSM) mode is reselected; receiver is turned to a channel and an average signal strength measurement is made over a period of less than 6.6 ms; additional passes are made until three full passes have been made for a total time of 20 ms used [col. 8 lines 37-57]); and for instructing the channel subset selector to select a subsequent subset of the channels upon expiry of the delay (the greatest of the three signal strength measurements made on each channel, then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 14**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses wherein the accessible wireless network transmits a GSM encoded signal, and the encoded signal detector is a GSM signal detector (an attempt is made to locate a GSM control channel [abstract, col. 9 lines 33-34, col. 1 lines 47-52]).

Consider **claim 15**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim**

12 above, and in addition, Dent further discloses wherein the encoded signal detector includes means for requesting a complementary subset of the channels when a channel carrying an encoded signal is identified (then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 58-62]).

Consider **claim 16**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses wherein the encoded signal detector includes means for requesting a complete subset of the channels when a channel carrying an encoded signal is identified (the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel; if no analog control channel is properly decoded, then a determination is made as to whether additional signal strengths above threshold are present; if yes, then using the AMPS receiver bandwidth for all regions identified in the wideband scan with signal strengths over the predetermined threshold, until an AMPS control channel is found [col. 8 lines 25-36]).

Consider **claim 17**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 13 above**, and in addition, Dent further discloses wherein the timer includes means for instructing the channel selector to select the subsequent subset of the channels upon expiry of the delay if the encoded signal detector did not identify a channel carrying the encoded signal (if no region contains a signal over the

predetermined threshold or no additional analog control channels can be found, then the wideband (GSM) mode is reselected; receiver is turned to a channel and an average signal strength measurement is made over a period of less than 6.6 ms; additional passes are made until three full passes have been made for a total time of 20 ms used; the greatest of the three signal strength measurements made on each channel, then the measurements are repeated using other channels until the whole region of the D-AMPS spectrum has been scanned [fig. 5B, col. 8 lines 37-62]).

Consider **claim 18**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses wherein the network device registrar includes means for registering the mobile device on the accessible network associated with the identified channel carrying the highest power encoded signal (when a cellular radiotelephone is powered on, it performs an initialization procedure with the cellular radiotelephone system; the cellular radiotelephone scans a plurality of channels and/or time slots in order to locate an appropriate control channel; the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel and an attempt is made to decode an analog control channel [col. 1 lines 30-35, col. 8 lines 8-36]).

Consider **claim 19**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention **as applied to claim 12 above**, and in addition, Dent further discloses wherein the network device

registrar includes means for registering the mobile device on the network associated with the identified channel carrying the highest power encoded signal (when a cellular radiotelephone is powered on, it performs an initialization procedure with the cellular radiotelephone system; the cellular radiotelephone scans a plurality of channels and/or time slots in order to locate an appropriate control channel; the AMPS channel containing the largest signal strength is identified; the receiver is tuned to that channel and an attempt is made to decode an analog control channel [col. 1 lines 30-35, col. 8 lines 8-36]).

4. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Dent (US 6,393,284 B1)** and **Hardin (US 6,400,948 B1)** in view of **Sporre (5,996,657)**, and in further view of **Zicker (5,465,388)**.

Consider **claim 10**, and **as applied to claim 6 above**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention except that the radiotelephone registers for emergency service.

In the same field of endeavor, Zicker clearly shows and discloses wherein the step of establishing the connection includes the step of registering the mobile device for emergency service to the network with an associated encoded signal having the strongest power (EPR, emergency portable cellular radiotelephone, achieves improved communication services because it does not prefer a system A channel when a stronger system B channel is available, or vice-versa; the best available signalling the best available signalling channel is selected for

emergency communication services [abstract, col. 3 lines 35-45, col. 4 lines 24-36, col. 7 lines 7-12, lines 54-60]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to choose a channel based on signal strength as taught by Zicker in the system of Dent and Hardin, as modified Sporre, in order to establish a communication link.

5. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Dent (US 6,393,284 B1)** and **Hardin (US 6,400,948 B1)** in view of **Sporre (5,996,657)**, and in further view of **Davey et al. (US 5,258,981)**.

Consider **claim 11**, and **as applied to claim 3 above**, the combination of Dent and Hardin, as modified by Sporre, clearly shows and discloses the claimed invention except that the sets of channels are odd and even.

In the same field of endeavor, Davey et al. clearly show and disclose wherein the selected subset of the associated channels corresponds to even numbered channels in a frequency band, and the next selected subset of the associated channels corresponds to odd numbered channels in the frequency band (secondary station when scanning non-adjacent carrier channels; scanning sequence will comprise the odd numbered carrier channels, a delay, and then the even numbered carrier channels [fig. 7, col. 7 line 57- col. 8 line 13]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to scan a fraction of the available

channels as taught by Davey et al. in the system of Dent and Hardin, as modified by Sporre, in order to accelerate scanning of cellular channels.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is (571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jaime M Holliday/
Examiner, Art Unit 2617

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617